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ENVIRONMENTAL IMPACT STATEMENT

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Pursuant to: Montana Environmental Policy Act
Section 69-6504 (b) (3)

Project No. FG-2

Riprap on Big Spring Creek

December 22, 1971

Prepared by

Montana Fish and Game Department
Fisheries Division
Helena, Montana

I. Purpose

Install riprap to control bank erosion on Big Spring Creek in area just below canal diversion gates at the lower unit of the Big Springs Trout Hatchery, a State Fish and Game Department installation.

II. Description of the Project

The proposed project consists of placing rock riprap along a 50-foot section of bank of Big Spring Creek to control bank erosion and sloughing. The area is located in T14N, R19E, SW$\frac{1}{4}$NW$\frac{1}{4}$, Sec. 5, just below the diversion gates of the canal into the lower unit of the State Fish Hatchery. Large rock is available in quantity from the hillside across and back from the stream.

III. Description of Existing Environment

A. Human Resources - Not applicable.

B. Physiography and Geology

The riprap site is presently sheer and undercut, the flow will continue to cut and cause bank erosion under existing conditions.

C. Land Use

The erosion is cutting into farm land owned by Mr. Foreman. It is his wish that the department control the erosion.

D. Fish and Wildlife

Present siltation is detrimental to food-producing gravel areas of the stream bottom.

E. Vegetative Resources - Not applicable.

F. Climate - Not applicable.

G. Transportation System - Not applicable.

H. Utility Systems - Not applicable.

IV. Evaluation of Environmental Impact

A. Environmental Impact of Proposed Action

The effect of the action will be to stop heavy bank erosion and sloughing which, in turn, will reduce stream siltation, allow bank vegetation to become re-established and benefit bottom fauna in the stream.

B. Adverse Environmental Effects which cannot be avoided

No adverse environmental effects are foreseen or anticipated.

C. Alternatives

The alternative to the action would be to let the stream continue to cut into the bank, providing a continuing source of silt into Big Spring Creek. No action would also be against the landowner, Mr. Foreman's, request that we control the erosion which is occurring on his property and which he feels was caused by installation of the canal diversion gate.

D. Short-Term - Long-Term Use

Long term effects will be to stabilize the streambank and lessen erosion.

E. Irreversible and Irretrievable Commitment of Resources

No irreversible or irretrievable commitments of resources. While not likely to occur, the riprap could be removed should any adverse effects develop.

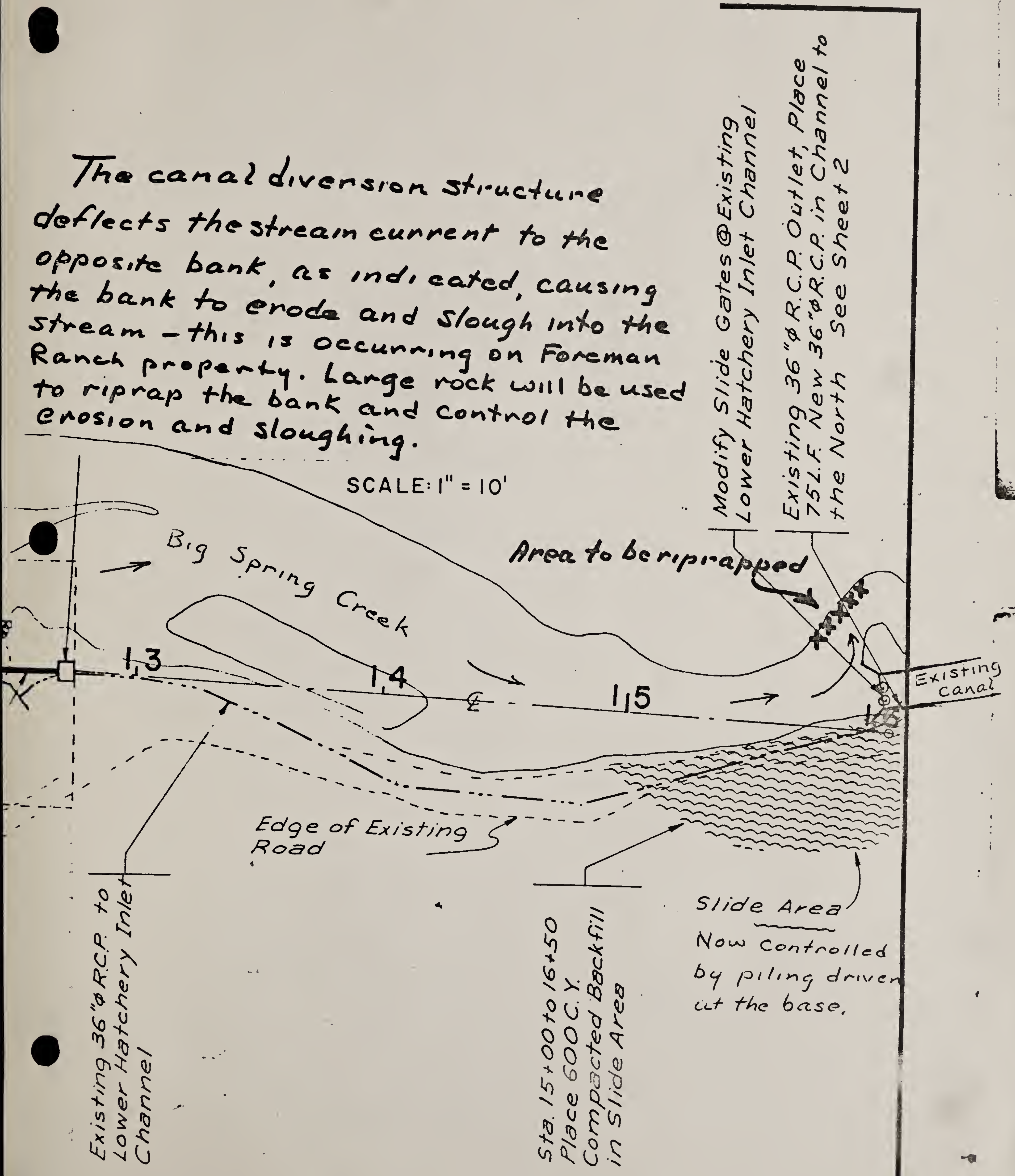
V. Benefits

The control of erosion and bank sloughing will aid in keeping Big Spring Creek clear, aid bottom fauna by reducing siltation of production areas, assist revegetation and stabilization of the streambanks.

VI. A Summary Statement

The environmental impact of the proposed riprap project on Big Spring Creek would be considered beneficial.

The canal diversion structure deflects the stream current to the opposite bank, as indicated, causing the bank to erode and slough into the stream – this is occurring on Foreman Ranch property. Large rock will be used to riprap the bank and control the erosion and sloughing.



Modify Slide Gates @ Existing Lower Hatchery Inlet Channel

Existing 36"ø R.C.P. Outlet, Place 75 L.F. New 36"ø R.C.P. in Channel to the North See Sheet 2

Existing 36"ø R.C.P. to Lower Hatchery Inlet Channel

Sta. 15+00 to 16+50 Place 600 C.Y. Compacted Backfill in Slide Area

Now controlled by piling driven at the base.